

**Re Item I**

**Basis of the report**

The amendments filed with the letter dated 22.11.2005 introduce subject-matter which extends beyond the content of the application as filed, contrary to Article 34(2)(b) PCT.

The amendments concerned are the following:

Claim 3: wherein the *protein cluster*, *protein* or *protein fragment* is a random coil.  
on page 3, lines 13-15 as originally filed a basis can only be found for the condition that the **protein** is a random coil.

Claim 9: the result of a single example using a specific manganese proteinate cannot be regarded as a general disclosure for the effect to be achieved for all possible manganese proteinates. Thus, the generalisation defined in present claim 9 is not fairly based on the originally filed documents.

Moreover, the results of test 3 of the application as originally filed do not demonstrate an increased bleaching performance (as to be expected when using a bleach activator) but only demonstrate that the amount of available oxygen in the composition is not decreased. The two different effects (increase of bleaching power and decrease of available oxygen is lowered when compared to the use of  $\text{MnSO}_4$ ) are related but not identical.

Thus, claim 9 contravenes the requirements of Article 34(2)(b) PCT, since the effect is not explicitly described and in addition is unduly generalised.

Consequently, this report has been established as if said amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2© PCT).

**Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Cited documents**

The following documents (D) are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

D1: WO-A-03/104368

D2: WO-A-96/41860

D3: DE-A-43 15 397

D4: WO-A-95/20030

D5: US-B-3 969 540

D6: US-B-5 358 722

**2. Novelty (Article 33(2) PCT)**

- 2.1. The present application does not meet the criterion set forth in Article 33(2) PCT because the subject-matter of claim 1-2,4-5 and 7 is not new in respect of the prior art as defined in the regulations (Rule 64(1)-(3) PCT).

D2 discloses enzyme-containing granulate (claim 1) suitable for incorporation in particulate cleaning agents which also contains anti-corrosion agents for silver as an intimate mixture with the organic carrier (according to claim 15: cellulose, saccharose, starch (a polymer matrix)). Thus, the carrier surrounds the anti-corrosion agent. The anti-corrosion agent can be a manganese compound (claims 2-3,9). The enzyme granulate comprises high amounts of an enzymatic protein (claim 4). Therefore, during granulation at least a part of said manganese compound should also be surrounded, enclosed by (comprised in) or attached to (associated with) said enzymatic protein (wherein any protein can be also regarded as protein fragment, protein cluster or peptide in absence of any further restrictions in the claims). Since the bleaching agent and the anti-corrosion agent are provided as separate granules, these ingredients have no direct contact to each other in the final cleaning composition (claim 21).

- 2.2. Moreover, since the intended use of a composition is not suitable to distinguish a per se known composition from the prior art (Guidelines Chapter 12.05) as long as the

composition is **suitable** for the intended "new" use, the following documents disclose compositions falling into the scope of present claims 3-4.

It might well be that cleaning composition may contain further common ingredients such as surfactants but these ingredients are not required by the present claims.

Since water itself can also be used for cleaning, any composition can be regarded as cleaning composition.

- a) D5 exemplifies a process for producing manganese proteinate (examples 4, 9). The final reaction composition before isolation of the proteinate has a pH of 8.5 (typical for washing compositions) and contains manganese associated with the protein.
  - b) D6 discloses a composition comprising manganese proteinate (example 11) having a manganese (IV) core. The composition has a pH of 7.5 (typical for washing compositions).
- 2.3. The use of manganese proteinate for silver protection is not known from the cited prior art. Thus, the subject-matter of present claim 8 is novel.

### **3. Inventive Step (Article 33(3) PCT)**

- 3.1. The general problem to be solved by the present application can be regarded as to provide a silver anti-corrosion compound, wherein the anti-corrosion agent can be used without being modified, e.g. being coated with a waterproof coating layer prior to its use in cleaning compositions (page 2, lines 7-11).

This problem is solved by using a manganese compound which is comprised in or associated with a protein.

The general problem of providing anti corrosion agents which can be used directly or in direct combination with further actives, is also addressed by document D2 (paragraph bridging pages 5-6).

Document D2 (claim 1) moreover indicates that it is convenient to incorporate the anti-corrosion agent within a polymer matrix/carrier.

D2 thereby addresses explicitly anti-silver corrosion agents and is thus regarded as the closest prior art.

The subject-matter of claim 6 differs from the teaching of D2 in that the bleaching agent in that the cleaning composition is comprised of layers comprising the incompatible ingredients separately.

The objective technical problem of providing a stable cleaning composition is thus solved by a routine measure for the skilled person, since separating incompatible ingredients by using multi-layered tablet is common practice to the skilled person for years.

Thus, the subject-matter of present claim 6 lacks an inventive step (Article 33(3) PCT).

3.2. The present application does not show any effect relating to the fact that the protein is a random coil. Thus, starting from D2 the use of a random coil has to be regarded as an arbitrary modification in order to provide a mere alternative, contrary to Article 33(3) PCT.

3.3. The use of manganese proteinate as silver anti-corrosion is not disclosed by any of documents D1-D6.

Since the examples of the present application clearly indicate, that manganese proteinate is suitable for preventing silver corrosion in a dish-washing process, claim 8 is regarded as inventive.

3.4. However, from the present application it is not visible which effect can be achieved by using such a manganese proteinate in toilet cleaning or laundry.

Thus, using manganese proteinate in a cleaning process other than dishwashing has to be regarded as an arbitrary modification of well known cleaning processes using commonly applied cleaning compositions.

Since no effect is indicated in the present application, the use of such a manganese proteinate in any cleaning composition (present claim 1) has thus to be regarded as arbitrary and therefore lacking an inventive step (Article 33(3) PCT).

**INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(SEPARATE SHEET)**

International application No.

PCT/EP2005/001813

**Re Item VIII**

**Certain observations on the international application**

The terms "protein fragment" and "protein cluster" are vague and have no well defined and precise meaning (Article 6 PCT).